Case 70126

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF
Patrick Jeff Crowley
SERIAL NO. 10/536,518
FILED: May 25, 2005
FOR: Fungicides

Group Art Unit: 1616
Examiner: Alton Nathaniel Pryor

Commissioner for Patents
PO Box 1450
Alexandria, Va 22313-1450

DECLARATION UNDER RULE 132

I, Fiona Murphy Kessabi, a citizen of Ireland, residing in CH-4058 Basel, Switzerland, hereby declare:

CREDENTIALS

1. That I was awarded the degree of a Ph.D. in 1997 by the University of Louvain-La-Neuve in Belgium;

2. That I have been employed by Syngenta AG, Basel, Switzerland as a research chemist since 2000 and presently hold the position of a fungicide project leader in organic chemistry;

3. That I have been engaged in synthesis work in the field of fungicides for Syngenta AG since 2004;

EXPERIMENTAL PROCEDURES

4. That the following tests were carried out under my supervision in a greenhouse in Stein/Switzerland to determine the fungicidal actions of the following inventive N-alkynyl-2-alkoxy-2-(substituted phenoxy)alkylamides on various pathogens:

These compounds were tested in a leaf disk assay, with methods described below. The test compounds were dissolved in DMSO and diluted into water to 200 ppm. In the case of the test on *Pythium ultimum*, they were dissolved in DMSO and diluted into water to 20 ppm.

Erysiphe graminis f.sp. tritici (wheat powdery mildew): Wheat leaf segments were placed on agar in a 24-well plate and sprayed with a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed four days after inoculation as preventive fungicidal activity.

Septoria nodorum (wheat glume blotch): Wheat leaf segments were placed on agar in a 24-well plate and sprayed with a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed four days after inoculation as preventive fungicidal activity.

Pyrenophora teres (barley net blotch): Barley leaf segments were placed on agar in a 24-well plate and sprayed with a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed four days after inoculation as preventive fungicidal activity.

Pyricularia oryzae (rice blast): Rice leaf segments were placed on agar in a 24-well plate and sprayed with a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed four days after inoculation as preventive fungicidal activity.

Phytophthora infestans (late blight of potato on tomato): Tomato leaf disks were placed on water agar in a 24-well plate and sprayed with a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed four days after inoculation as preventive fungicidal activity.

Plasmopara viticola (downy mildew of grapevine): Grapevine leaf disks were placed on agar in a 24-well plate and sprayed a solution of the test compound. After allowing to dry completely, for between 12 and 24 hours, the leaf disks were inoculated with a spore suspension of the fungus. After appropriate incubation the activity of a compound was assessed seven days after inoculation as preventive fungicidal activity.
Pythium ultimum (Damping off): Mycelial fragments of the fungus, prepared from a fresh liquid culture, were mixed into potato dextrose broth. A solution of the test compound in dimethyl sulphoxide was diluted with water to 20ppm then placed into a 96-well microtiter plate and the nutrient broth containing the fungal spores was added. The test plate was incubated at 24°C and the inhibition of growth was determined photometrically after 48 hours.

5. That the following results were obtained:

The following compounds gave 60 to 100% control of disease (number of compound first, followed by table number in brackets followed by % efficacy):
Plasmopara viticola, compounds 4 (1) 100%, 4 (2) 100%, 4 (5) 100%, 2 (6) 70%, 4 (6), 4 (9) 70%, 4 (13) 100%;
Phytophthora infestans, compounds 4 (1) 100%, 4 (2) 70%, 4 (5) 70%, 4 (9) 70%, 4 (17) 70%, 10 (1) 100%, 10 (2) 100%;
Erysiphe graminis f.sp. tritici, compound 4 (9) 70% , 4 (13) 70%;
Septoria nodorum, compound 8 (6) 70%;
Pyricularia oryzae, compound 2 (6) 70%;
Pyrenophora teres, compound 8 (6) 100%;
Pythium ultimum, compounds 4 (1) 70%, 4 (2) 70%, 4 (5) 70%, 2 (6) 100%, 4 (6) 100%, 8 (6) 70%, 4 (9) 70%, 4 (13) 100%, 10 (1) 70%, 10 (2) 100%.

CONCLUSIONS

6. These results are indicative of the superior overall performance of the inventive fungicidal compositions comprising the inventive N-alkynyl-2-alkoxy-2-(substituted phenoxy)alkylamides.

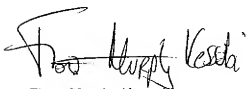
7. This superior performance is surprising because the high fungicidal activity of the tested compounds could not be expected by the artisan in view of the structurally closely related compounds disclosed in US 4,049,423, which are herbicides.

8. This superior performance is important because it allows a very efficient control of the said pathogens.

FINAL STATEMENT

I, Fiona Murphy Kessabi, declare further that all statements made herein of personal knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section §1001 of Title18 of the United States Code, and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Signed this 17th day of September, 2007,



Fiona Murphy Kessabi